

WHAT IS CLAIMED IS:

1. A production method for a multi-layer board, comprising:

a pattern forming step of forming a conductive pattern on at least one surface of a resin film made of thermoplastic resin;

a piling step of piling up, with sandwiching at least one release film in a given region, a plurality of resin films that include the resin film that is provided with the conductive pattern;

a heating and pressurizing step of heating and pressurizing with a press mold a pile of the resin films including the release film so that the resin films mutually adhere to form the multi-layer board;

a first mounting step of mounting a component on a surface of the multi-layer board;

a separating step of separating the release film, a first separation board, and a second separation board to remove the release film, wherein the first separation board is a first portion of the multi-layer board that is located on the release film while the second separation board is a second portion of the multi-layer board that is located under the release film; and

a second mounting step of mounting a component on at least one released surface of the first and second separation boards in a state where at least one separation board of the first and second separation boards is folded at an angle

relative to a position prior to being separated.

2. The production method for a multi-layer board according to Claim 1, further comprising:

a slit forming step of forming a slit so that the slit is disposed from one surface of the multi-layer board to a surface of the release film perpendicularly to the surface of the multi-layer board.

3. The production method for a multi-layer board according to Claim 2,

wherein, when a formation portion where the first and second separation boards are formed within the multi-layer board precludes a side edge of the multi-layer board, the slit is formed so that the slit is along at least a part of a peripheral edge of the formation portion.

4. The production method for a multi-layer board according to Claim 2,

wherein the slit is formed so that the slit is being continuously cut within the multi-layer board.

5. The production method for a multi-layer board according to Claim 2,

wherein the slit is formed so that the slit is being discontinuously cut within the multi-layer board.

6. The production method for a multi-layer board according to Claim 1,

wherein the first and second separation boards are separated from a side edge of the multi-layer board as a starting edge.

7. The production method for a multi-layer board according to Claim 1,

wherein the first and second separation boards are separated from a slit as a starting edge, wherein the slit is formed approximately perpendicularly to one surface of the multi-layer board from the one surface of the multi-layer board to a surface of the release film.

8. The production method for a multi-layer board according to Claim 1,

wherein a spacer is provided at least one space of a first space and a second space, wherein the first space is between the separated first and second separation boards while the second space is between the surface of the multi-layer board and one of the separated first and second separation boards.

9. The production method for a multi-layer board according to Claim 1,

wherein in the piling step a reinforcing member is additionally provided in a certain region between the resin films, wherein the certain region precludes the given region

where the release film is sandwiched and a region where the folded separation board is curved.

10. The production method for a multi-layer board according to Claim 1,

wherein the release film has a melting temperature that is higher than a temperature at which the heating and pressurizing step is executed.

11. A multi-layer board comprising:

a plurality of conductive patterns piled with having resin films, made of thermoplastic resin, therebetween; and

two separation boards of a first and a second separation boards,

wherein, before being heated and pressurized, the first and the second separation boards are located at an upper side and a lower side, respectively, of at least one release film that is sandwiched in a region between two of the resin films,

wherein, after being heated and pressurized, the first and the second separation boards and the release film are separated for the release film to be removed,

wherein one of the two separation boards is folded at an angle relative to a position prior to being separated, and

wherein a component can be mounted on at least one released surface of the two separation boards;

12. The multi-layer board according to Claim 11,

wherein the one of the two separation boards is folded at an angle of approximately 180 degrees relative to a position prior to being separated.

13. The multi-layer board according to Claim 11, wherein a spacer is provided at least one space of a first space and a second space, wherein the first space is between the separated first and second separation boards while the second space is between the surface of the multi-layer board and one of the separated first and second separation boards.

14. The multi-layer board according to Claim 11, further comprising:

a reinforcing member provided in a certain region between the resin films, wherein the certain region precludes a first region where the release film was sandwiched before being separated and a second region where the folded separation board is curved.

15. A mobile device comprising:

a multi-layer board, wherein the multi-layer board includes,

a plurality of conductive patterns piled with having resin films, made of thermoplastic resin, therebetween, and

two separation boards of a first and a second separation boards,

wherein, before being heated and pressurized, the first and the second separation boards are located at an upper side and a lower side, respectively, of at least one release film that is sandwiched in a region between the resin films,

wherein, after being heated and pressurized, the first and the second separation boards and the release film are separated for the release film to be removed, and

wherein one of the two separation boards is folded at an angle relative to a position prior to being separated; and

a component mounted on at least one released surface of the two separation boards of the multi-layer board.

16. The mobile device according to Claim 15,

wherein a sheet key is disposed on the released surface of one of the separated two separation boards that is folded at an angle of approximately 180 degrees relative to a position prior to being separated, and

wherein an LCD connector and an LCD module are disposed on the released surface of the other of the separated two separation boards.

17. A multi-layer board produced by a method that comprises:

a pattern forming step of forming a conductive pattern on at least one surface of a resin film made of thermoplastic

resin;

a piling step of piling up, with sandwiching at least one release film in a given region, a plurality of resin films that include the resin film that is provided with the conductive pattern;

a heating and pressurizing step of heating and pressurizing with a press mold a pile of the resin films including the release film so that the resin films mutually adhere to form the multi-layer board;

a first mounting step of mounting a component on a surface of the multi-layer board;

a separating step of separating the release film, a first separation board, and a second separation board to remove the release film, wherein the first separation board is a first portion of the multi-layer board that is located on the release film while the second separation board is a second portion of the multi-layer board that is located under the release film; and

a second mounting step of mounting a component on at least one released surface of the first and second separation boards in a state where at least one separation board of the first and second separation boards is folded at an angle relative to a position prior to being separated.

18. A mobile device comprising:

a multi-layer board; and

a component mounted on at least one of two released

surfaces of two separation boards of the multi-layer board,

wherein the multi-layer board produced by a method that includes:

a pattern forming step of forming a conductive pattern on at least one surface of a resin film made of thermoplastic resin;

a piling step of piling up, with sandwiching at least one release film in a given region, a plurality of resin films that include the resin film that is provided with the conductive pattern;

a heating and pressurizing step of heating and pressurizing with a press mold a pile of the resin films including the release film so that the resin films mutually adhere to form the multi-layer board;

a first mounting step of mounting a component on a surface of the multi-layer board;

a separating step of separating the release film, a first separation board of the two separation boards, and a second separation board of the two separation boards to remove the release film, wherein the first separation board is a first portion of the multi-layer board that is located on the release film while the second separation board is a second portion of the multi-layer board that is located under the release film; and

a folding step of folding at least one separation board of the two separation boards, at an angle relative to a position prior to being separated, to form the



released surfaces of the two separation boards.